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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,973	06/20/2003	Jerome H. Simon	04870-P27 US	1347
26486	7590	11/30/2004	EXAMINER	
PERKINS, SMITH & COHEN LLP ONE BEACON STREET 30TH FLOOR BOSTON, MA 02108			SAWHNEY, HARGOBIND S	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/601,973	SIMON, JEROME H.	
	Examiner	Art Unit	
	Hargobind S Sawhney	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. The following title is suggested.

--Segmented reflector systems and combined reflector and refractor systems--

#### *Ex Parte Quayle*

2. This application is in condition for allowance except for the following formal matters:

Claim 1, line 6, "an optical axis" appears to be referring the limitation "an optical axis" recited in line 5. Therefore, "an optical axis" recited in line 6 should be rephrased as --said optical axis--.

Claim 1, lines 6-9, a segmented radial disk ..... section of segment; and" should be rephrased for clear and finite recitation. The applicant may consider the following rephrasing:

-- a segmented radial disk located on said optical axis; said radial disk including parabolic or ellipsoidal radial segments having their focal points coinciding with said quasi point source; each of said radial segments being concave in the transverse section; and --.

Claim 5, line 5, "an optical axis" appears to be referring the limitation "an optical axis" recited in line 4. Therefore, "an optical axis" recited in line 5 should be rephrased as --said optical axis--.

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Claim 5, lines 5-7, a segmented radial disk ..... section of segment; and” should be rephrased for clear and finite recitation. The applicant may consider the following rephrasing:

-- a radial disk located on said optical axis; said radial disk including parabolic or ellipsoidal radial segments having their focal points coinciding with said quasi point source on said optical axis; and --.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

***Allowable Subject Matter***

3. Claims 1-15 are allowed.

The prior art of record, including Davis et al. (US Patent No.: 4,969,074), Dejong (US Patent No.: 4,159,511) and Pennow (US Patent No.: 2,359,151) does not show or suggest the applicant's invention as claimed. Specifically, the prior art of record does not disclose an optical system assemblies combining:

- a segmented radial disk located on said optical axis; said radial disk including parabolic or ellipsoidal radial segments having their focal points coinciding with said quasi point source as recited in Claim 1;
- each of said radial segments being concave in the transverse section of the segment as recited in claims 1 and 5;

The above-indicated combination, including a segmented radial disk including parabolic or ellipsoidal radial segments, and further being coaxial with the optical axis of the device, makes this invention unique.

Therefore claims 1 and 5 would be allowable over prior art.

Claims 2-4 and 7-15 would necessarily be allowable because of their dependency on base Claim 1.

Claim 6 would necessarily be allowable because of its dependency on base Claim 5.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Maier et al. (U.S. Patent No. 6,572,234 B1), Scholz (U.S. Patent No. 5,331,530), Evan, Jr. et al. (U.S. Patent No. 4,674,137) and Cherouge (U.S. Patent No. 4,2364,948)

Each of the above-indicated prior arts discloses an optical system comprising some of the claimed features claimed by the applicant.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 6:15 - 2:45.

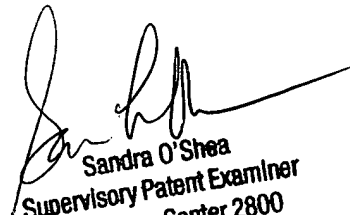
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HSS

11/24/2004



Sandra O'Shea  
Supervisory Patent Examiner  
Technology Center 2800